September 21, 2005

David H. Meyer
Acting Deputy Director
Office of Electricity Delivery and Energy Reliability
U.S. Department of Energy

Re: Section 1234 of the Energy Policy Act of 2005
U.S. Department of Energy Study on Economic Dispatch

Dear Mr. Meyer:

SUEZ Energy North America owns, operates and constructs electric generation plants and LNG import facilities throughout North America. Our headquarters are in Houston, Texas. On behalf of Suez Energy North America, I am pleased to respond to your letter of September 1, 2005 requesting analyses and comments on economic dispatch as it is interpreted in the electric industry today.

My letter describes impediments to achieving the full consumer savings attributable to the economic dispatch of electric generation resources in transmission control areas that are outside of Regional Transmission Organizations ("RTOs") and then turns to the specific questions posed by the study authors.

What Is Economic Dispatch - Definitions

For the purposes of this discussion, the phrase Economic Dispatch means the operation of all generating plants in a control area or interconnected region on a merit order basis, taking into account reliability protocols.

The phrase Merit Order means the units with the lowest offer price (based on $/MWh and minimum run time) are dispatched first for operation, moving from the least expensive unit to the more expensive units as demand increases during the day.

The phrase Reliability Protocols refers to written operating procedures of the transmission provider that require the operation of generating plants "out of merit order" because of a transmission contingency, including but not limited to transmission line or generating plant outages.

Economic Dispatch by RTOs

Regional transmission organizations centrally dispatch generation using economic dispatch. A study by Global Energy Decisions, *Putting Competitive power Markets to the*

Test (July 2005), found that wholesale customers of RTO's in the Eastern Interconnection saved more than $15.1B in wholesale power costs from 1999-2003. In addition, generating plants, especially nuclear power plants, became significantly more efficient – with lower operating and maintenance costs and better heat rates.[1] The environmental benefits when cleaner, newer facilities are dispatched instead of older plants with higher emission rates are substantial. These findings are borne out by SUEZ Energy North America's internal analysis of just three states (Arkansas, Louisiana and Mississippi) which is attached to this letter.

Non-Economic Dispatch Outside of RTOs

In regions that are not operated by RTOs, utilities often ignore merchant generation when making dispatch decisions. Why? Because utility-owned generation is in rate base. Therefore the utility continues to operate its old, inefficient generation because it continues to earn a return on those assets. By excluding non-utility generators[2] from the merit order calculation, non-RTO utilities raise consumer prices. As an example, a 2003 study by Louisiana State University found that fuel savings by including non-utility generation in the merit order calculation resulted in $900M in savings in the control area of just one transmission company, Entergy Services, Inc. Assuming forecasted natural gas prices of $10/MMBtu in the winter of 2005-06, operating a non-utility generator with a 5000 heat rate results in a savings of $50/MWh compared to operating a natural gas-fired power plant at the average heat rate of utility generation in the Southeast.

Clearing-up Confusion about Economic Dispatch

From time-to-time, analysts have been confused and confusing about the definition of economic dispatch. On November 6, 2002, a study entitled, *The Benefits and Costs of Regional Transmission Organizations and Standard Market Design in the Southeast,*[3] was presented to the Federal Energy Regulatory Commission that purported to show that an RTO was not cost effective in the Southeastern United States. This study somewhat dubiously assumed that non-utility generators were already included in the merit order dispatch of the various utilities that operate in the Southeastern states. This assumption is invalid and fundamentally skewed the results of the study.

Transmission utilities and RTOs perform the calculations for economic dispatch on the day before the electricity is produced (the "day ahead") so that the selected

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[1] A heat rate measures how efficiently a generating plant consumes fuel for each megawatt of electricity produced.

[2] Non-utility generators are generating plants that are not in the rate base of a company with a franchised electric distribution area.

[3] *The Benefits and Costs of Regional Transmission Organizations and Standard Market Design in the Southeast,* Charles River Associates (November 6, 2002). This study was prepared at the behest of the Southeastern Association of Regulatory Utility Commissioners.

generating plants will be ready to make deliveries when needed ("real time"). Excluding non-utility generators from the merit order calculation on the day ahead often means that non-utility generators still idle in real time.

Excluding non-utility generators from the merit order calculation also results in a not so subtle form of anti-competitive discrimination. Transmission providers outside of RTOs use the day ahead calculation of merit order to determine if there is any extra transmission capacity available to be sold to non-utility generators and others. Such extra transmission capacity is formally called Available Transmission Capacity or "ATC." The non-RTO utility has discretion to schedule its generation how it sees fit. Thus, when the utility schedules its own generation and excludes merchant generation from the merit order calculation, transmission capacity is automatically reserved for the utility's owned generation. This leaves very little or no ATC left over for non-utility generators to transact with other buyers. Despite the fact that the utility has scheduled its own generation well in advance of the actual dispatch, it has the discretion to later (often much later) change that schedule. Thus, it can lock up and hold on to transmission capacity (via its dispatch schedule) and preclude merchant generation from selling to other buyers. By reducing ATC, the non-RTO utility can name its price to a merchant generator. If the merchant generator sells to the utility, the non-RTO utility reduces its own generation in the dispatch schedule and adds the merchant power. This is known as "delisting" or "displacement." The utility's discretion over the merit order of dispatch represents an abuse of market power based on access to the transmission system. Thus, excluding merchant generators from the merit order calculation reduce the quantity of ATC that a merchant generator can access to sell to buyers other than the transmission providing utility and benefits the transmission providing utility by assuring a captive pool of sellers.

Questions and Answers

Based on the preceding discussion of some of the major problems with the way economic dispatch is defined and implemented in the electric utility industry, Suez Energy North America takes this opportunity to answer the following survey questions.

QUESTION 1) What are the procedures now used in your region for economic dispatch? Who is performing the dispatch (a utility, an ISO or RTO, or other) and over how large an area (geographic scope, MW load, MW generation resources, number of retail customers within the geographic area)?

SUEZ Energy North America owns and operates a merchant generation facility in the control area of Entergy Services, Inc. ("ESI"). ESI operates a four state control area that encompasses parts of the states of Mississippi, Louisiana, non-ERCOT Texas, and Arkansas. Entergy does not employ economic dispatch as defined in this paper. Entergy uses operating procedures, posted on its OASIS, to delist network generation resources and replace them with daily, weekly, monthly or longer purchases.

We also operate in ERCOT and feel that economic dispatch in ERCOT more closely approximates competitive market forces. In Texas, a substantial amount of old, inefficient generation has been retired. Specifically as a result of deregulation, the

owners of inefficient generation are exposed to competitive market forces that force the owners to shutter old, expensive to operate and maintain generation rather than continuing to lose money by operating it.

QUESTION 2) Is the Act's definition of economic dispatch appropriate? Over what geographic scale or area should economic dispatch be practiced? Besides cost and reliability, are there ay other factors or considerations that should be considered in economic dispatch, and why?

The definition of economic dispatch in EPact 2005 is an appropriate and achievable public policy goal. Suez Energy Marketing NA does not believe that transmission providers outside of RTOs are in fact calculating merit order dispatch "to produce energy at the lowest cost to reliably serve customers" consistently with the statute.

Economic dispatch calculations should be performed over an entire reliability region in order to achieve maximum efficiency (lowest cost), consistently with reliability.

Cost and reliability are the two factors that should be considered when determining whether a transmission provider provides economic dispatch consistently with EPact 2005. Other factors, including but not limited to fuel diversity and environmental protection, are subsumed in the cost and reliability factors. In addition, demand response can and should be incorporated into economic dispatch.

QUESTION 3) How do economic dispatch procedures differ for different classes of generation, including utility-owned versus non-utility generation? Do actual operational practices differ from the formal procedures required under tariff or federal or state rules, or from the economic dispatch definition above? If there is a difference, please indicate what the difference is, how this occurs, and its impacts upon non-utility generation and upon retail electricity users. If you have specific analyses or studies that document your position, please provide them.

Outside of RTOs, we believe that transmission providers calculate merit order dispatch based on utility owned generation, thereby omitting less expensive non-utility generation. In practice, transmission providers use delisting procedures (posted on the OASIS) to substitute selected non-utility generators at the buyer's discretion. Outside of RTOs, transmission providers seldom (or never) perform redispatch studies as required by Order No. 888.

QUESTION 4) What changes in economic dispatch procedures would lead to more non-utility generator dispatch? If you think that changes are needed to current economic dispatch procedures in your area to better enable economic dispatch participation by non-utility generators, please explain the changes you recommend.

We recommend that transmission providers be required to include non-utility generation in all merit order calculations based on offer price ($/MWh and minimum run time). Once merit order dispatch is calculated, the transmission provider should take utility and non-utility generation out-of-merit order on a security-constrained basis,

which means that all thermal, voltage and stability limits in the transmission system are respected in the dispatch protocols. More specifically,

- The system operator (non-RTO utility) would solicit offers from all generators to provide energy, and operating reserves and perhaps some other ancillary services, through a day-ahead unit commitment process.

- An Independent Entity[4] can ensure that the offer and unit commitment process is equitable and non-discriminatory between utility and non-utility generation and non-utility affiliates of the transmission provider.

- Protocols would outline the types of information the transmission operator would require from non-utility generators to perform under an economic dispatch process such as ramp rates and limit data, when and how often this data must be updated, and how confidential information will be protected.

QUESTION 5) If economic dispatch causes greater dispatch and use of non-utility generation, what effects might this have – on the grid, on the mix of energy and capacity available to retail customers, to energy prices and costs, to environmental emissions, or other impacts? How would this affect retail customers in particular areas or nationwide? If you have specific analysis to support your position, please provide them to us.

Economic dispatch that includes non-utility generators has been conclusively shown to reduce consumer costs.[5] To the extent that newer and more fuel efficient generation resources are substituted for older units, air quality will improve and natural gas consumption may decline. Subject to States rules, economic dispatch can easily incorporate demand response programs[6]and innovative generation technologies.

QUESTION 6) Could there be any implications for grid reliability – positive or negative – from greater use of economic dispatch? If so, how should economic dispatch be modified or enhanced to protect reliability?

SUEZ Energy North America believes that economic dispatch, as defined by Congress in EPact 2005, encompasses reliability and requires operation of the grid "recognizing any operational limits of generation and transmission facilities." Therefore, we do not believe proper economic dispatch programs impair reliability. In our opinion,

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[4] An Independent Entity must be empowered by contract and tariff to: calculate merit order; determine economic dispatch consistent with reliability; grant or deny requests for interconnection and transmission services; and verify the transmission planning process. An Independent Entity may not be affiliated with any market participant.

[5] *Putting Competitive Power Markets to the Test*, Global Energy Decisions (July 2005).

[6] Suez Energy Marketing NA affirms that demand response programs are (correctly) within the historic and legal jurisdiction of State public service commissions.

economic dispatch will enhance reliability because it provides for inclusion of newer more efficient and operationally reliable non-utility generators where available and because demand response programs may be included in the economic dispatch algorithm if the States so choose.

Thank you for inviting the comments of so many sectors of the electric industry. If you have additional questions or comments for Suez, please do not hesitate to contact me at 713-636-1969.

Respectfully submitted,

By: J. Rob Minter
Vice President of Government Relations
SUEZ Energy North America

Cc: Ms. Alison Silverstein
Mr. Joe Eto
Federal Energy Regulatory Commission